



DECLASSIFICATION REVIEW BY NIMA / DoD

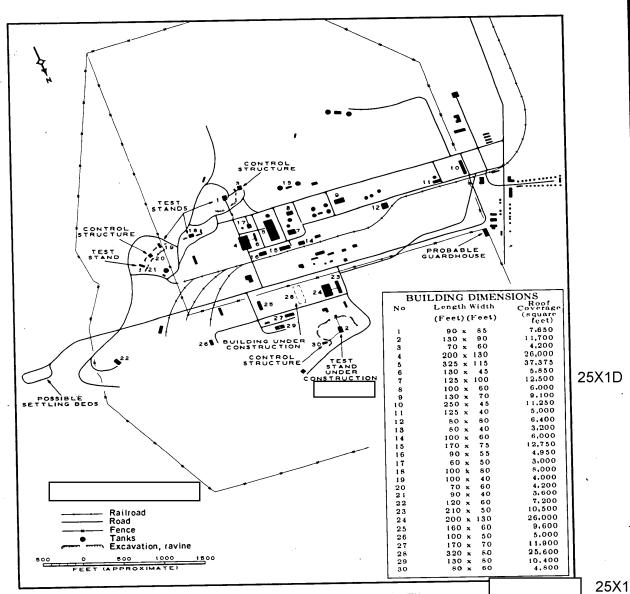
	KURUMOCH ROCKET ENGINE TEST FACILITY, USSR		
25X1D			
25X1	SUM	MARY	
25X1D 25X1 25X1D 25X1D	photography reveals changes that have taken place in the Kurumoch Rocket Engine Test Facility and permits identification of significant details of the facility about which there has been some doubt. It can now be stated that the installation contains five test stands, including two large vertical test stands and three smaller test stands. The large vertical test stand first seen is currently operational and contains a single test position. The other large test stand is in the final stage of con-	position. One of the three smaller test stands is currently operational and probably contains multiple test positions. The other two test stands are probably operational, and each probably contains a single test position. The two operational support facilities adjoining the two large test stands appear to be duplicates of each other except for minor differences. The apparent duplication may indicate either that the support facilities do not contain industrial processes which serve the entire test facility or that the items to be tested	
	struction and probably contains a single test	at the two large test stands are different.	
	INTROD	UCTION	
25X1A 25X1D 25X1 25X1D 25X1 25X1D	The purpose of this report is to update a previous NPIC report 1/ published in December 1963 on the Kurumoch Rocket Engine Test Facility located at 53-31N 49-49E near Kuybyshev, USSR (Figure 1). The previous report on this installation was compiled from photography, the latest of which was obtained In this report revisions and additions to information previously released are based on photography (rigure 2). Included in this report are revisions of a number of rather significant items which have permitted the formulation of certain conclusions. To support these conclusions, which are presented in the final section of this study, certain previously reported information is repeated in the body of this report, which consists of four tables included in Figures 4 through 7. Items in these tables are keyed to a line drawing of	photography. A perspective drawing of a test stand or stands accompanies each table. Kirov Kurumoch Kur	



FIGURE 2. KURUMOCH ROCKET ENGINE TEST FACILITY

- 2 -

25X1D



25X1D

FIGURE 3. KURUMOCH ROCKET ENGINE TEST FACILITY.

- 3 -

TOP SECRET

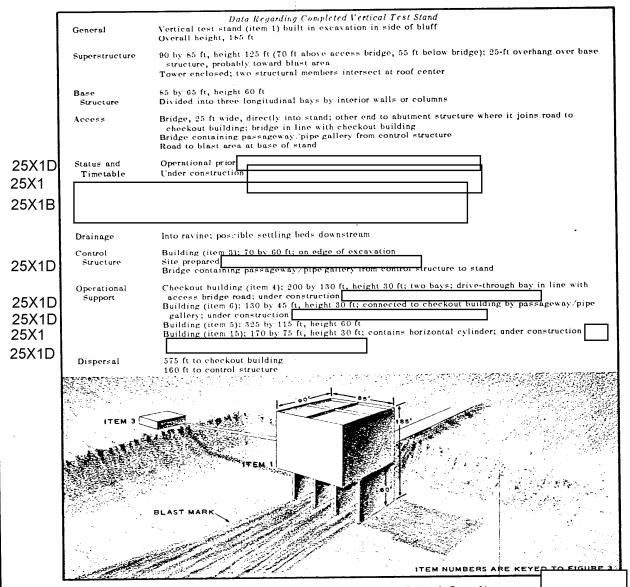


FIGURE 4. COMPLETED VERTICAL TEST STAND (Item 1, Figure 3).

25X1

25X1D

25X1D

25X1D

25X1D 25X1B

25X1D

25X1D

25X1D

25X1D

Data Regarding Vertical Test Stand Under Construction Vertical test stand (item 2) built in excavation in side of bluff General Overall height, estimated 150 ft (may be 200 ft; see comment under Base Structure, below) Superstructure 130 by 90 ft, height estimated 100 ft above approach bridge (not including possible tank on roof); tower enclosed Object, 40 by 20 ft, mounted transversely at center of roof; possible horizontal, cylindrical tank Height estimated 50 ft (may be 100 ft), ground to approach bridge; (earlier views suggest that the excavation depth may be more nearly 100 ft than the measured 50 ft Base Structure Bridge, 25 ft wide, directly into stand; other end rests on abutment structure in line with check-Access out building Bridge containing passageway/pipe gallery from control structure Road to blast area at base of stand Probably in final stages of construction Status and stand at least partially erected Under construction
Exterior appears complete Timetable but fill not completed for approach road to bridge abutment structure Into ravine; possible settling beds downstream Drainage Control Building (item 30); 80 by 60 ft; on edge of excavation Structure Completed Checkout building (item 24); 200 by 130 ft, height 30 ft; two bays, one in line with approach Operational Support bridge; completed 210 by 50 ft, height 30 ft; connected to checkout building by passageway pipe Building (item 23): gallery; completed Building (item 28); 320 by 60 ft; foundation only suspected of being same as Building (item 27); 170 by 70 ft; roof appears to be a vault within a parapet; suspected of being same as item 15 Building (item 29): 130 by 80 ft; possible two-section, semiburied structure 530 ft to checkout building Dispersal 160 ft to control structure ITEM NUMBERS ARE KEYED TO FIGURE 3

FIGURE 5. VERTICAL TEST STAND UNDER CONSTRUCTION (Item 2, Figure 3).

25X1

25X1D

25X1D

25X1D

25X1B

Data Regarding Possible Multiple Position Test Stand General Test stand (item 18); built on edge of an excavation cut into the side of bluff Superstructure 100 by 60 ft; possibly contains multiple test positions; greatest dimension parallel with edge of excavation and blast area Structure, 60 by 40 ft and taller than main structure, attached on one side of tower Estimated height above approach, 40 ft Object on roof possibly between test bays Base Extends to bottom of excavation Structure Built inside of curve in road descending side of bluff Direct access from road to upper level and to blast area Access Status and Operational Timetable Excavation present exterior completed no apparent change Drainage Into ravine; possible settling beds downstream Control None observed Operational None observed Support Dispersal 420 ft to item 4 320 ft to test stand (item 19) TEM NUMBERS ARE

25X1

FIGURE 6. POSSIBLE MULTIPLE POSITION TEST \$TAND (Item 18, Figure 3).

25X1D

25X1D

25X1D

25X1D 25X1B

Two test stands (items 19 and 21) built in two-level, stairstep excavation cut into side of bluff; stands are at edge of bench formed by the upper excavation and extend out into the lower General Item 19: 100 by 40 ft, height 40 ft above floor of upper excavation Superstructures Item 21: 90 by 40 ft, height 40 ft above floor of upper excavation Dimensions are estimates; longest dimension of each stand is at right angles to edge of bench Base Extend to bottom of lower excavation at both stands Structures Access Inclined approach bridges to tops of stands from top edge of upper excavation Road to blast areas Status and Both probably operational; exteriors completed Timetable No apparent change in either stand Excavation was in progress for item 19, but not for item 21 location of item 19 was just inside security fence and item 21 was just outside Into ravine; possible settling beds downstream Drainage Building (item 20), 70 by 60 ft; located between the test stands and in line with them Control Structure Operational None observed Support Distance to control structure for Item 19 is 170 ft and for item 21 is 150 ft Dispersal Distance from item 19 to item 16 is 320 ft

Data Regarding Two Small Test Stands

FIGURE 7. TWO SMALL TEST STANDS AND CONTROL STRUCTURE (Items 19, 20, and 21, Figure 3).

25X1

ITEM NUMBERS ARE KEYED TO FIGURE 3

NPIC /R - 157 /64

CONCLUSIONS

able have been reached concerning details of the Kurumoch Rocket Engine Test Facility as a photographic coverresult of 25X1D age. These conclusions are possible because of several factors. First, the new photography permits comparisons between the facility as it is now and as it has appeared at different times in the past. Second, the quality of the latest photography has made possible the taking of cer-

> tain measurements and the discernment of certain shapes that could not be accomplished on

Certain conclusions not previously attain-

earlier photography.

25X1 25X1D

25X1

25X1D

Prior to the latest photographic coverage, the principal matters about which there had been some doubt were: (1) the number of test positions at the test stand first identified (item 1, Figure 3); (2) the size of the test stand under construction (item 2); (3) the number of smaller test stands, and (4) the function(s) of the two buildings in the operational support facility adjoining the completed vertical test stand (item 1). 2/3/

The latest photography has permitted measurement of the vertical test stand under construction as well as of other structures, and this data has been presented on Figures 4 through 7. Other findings and conclusions are presented in the following numbered paragraphs, including statements regarding the status of the test stands, data concerning the number of test positions in each stand, and data concerning the operational support facilities.

 The installation contains five test stands: a vertical test stand (item 1, Figure 3), a vertical test stand under construction (item 2), and three smaller test stands (items 18, 19, and 21). Adjoining each of the two vertical test stands is a support facility containing a checkout building and other structures.

- 2. The vertical test stand (item 1) is currently operational and contains one test position. The stand has a single symmetrical blast mark, the axis of which is centered on the stand with its width next to the stand being the same as the width of the stand. (For additional data, see Figure 4.)
- 3. The vertical test stand under construction (item 2) is in the final stages of construction. It is larger than the other vertical test stand and probably contains one test position. The construction status is indicated by the completion of the structure and lack of an access road; that it probably has one position is indicated by the shape of the stand. (For additional data, see Figure 5.)
- 4. One of the smaller stands (item 18) is currently operational and probably contains multiple test positions as indicated by its shape and the size and position of the blast mark. (For additional data, see Figure 6.)
- 5. The other two smaller stands (items 19 and 21) are similar in appearance, are different from the other stands, and are probably operational. The access bridge at each stand leads to the top of the stand. Each stand contains one test position; this is indicated by the presence of one centered possible blast mark at item 19, by the lack of apparent change

and by the shapes of

the stands. (For additional data, see Figure 7.)

6. The operational support facilities adjoining the two large test stands are duplicates of each other in part and appear to be duplicates in many other respects. Items 4 and 24, 6 and 23 are matching pairs, and items 5 and 28, 15 and 27 are possible matching pairs. The apparent duplication may indicate either that the support facilities do not contain industrial processes which serve the entire test facility or that the items to be tested at the two large test stands are different.

25X1D 25X1D

-8-

	REFERENCES		
	PHOTOGRAPHY	•	
•			
25X1D			
	MAPS OR CHARTS		
	ACIC. US Air Target Chart, Series 200, Sheet 0165-17A, 3d ed, Jan 60, scale 1:200,000 (SECRET)		
	DOCUMENTS		
0EV4	1. NPIC. R-309/63, Kurumoch Rocket Engine Test Facility, USSR, Dec 63 (TOP SECRET		
25X1	2. USAF. ATIS-T-60-5, Kurumoch Rocket Engine Facility, 15 Sep 60 (TOP SECRET		
25X1		ar.	
25X1	8. CIA. OSI. PEM-0387/12/63 Space Technology Laboratories, Inc., Dec 63 (TOP SECRE	•	
	RELATED DOCUMENTS		
25X1C	CIA. PIC/JR-1002/60, Propulsion Test Complex, Kurumoch, USSR, Nov 60 (SECRET		
25X1C			
25X1D	NPIC. B-47/61, Propulsion Test Complex, Kurumoch, USSR: Changes CRET	E•	
25X1	CRET		
25X1C			
.25X1C	NPIC. R-99/63, Kurumoch Rocket Engine Test Facility: Original Test Stand, K vumoch, USSR, Jun 63 (TOP SECRET		
25X1C			
	REQUIREMENT		
	CIA. PC-56-64		
	NPIC PROJECT		
	N-65./64		
	2		

- 9